

Heatset web offset method

Electrostatic measurements on-line

The HSWO printing machine at FPC is equipped with an on-line electrostatic measurement right before the folding section.

Description

The electrostatic properties of the paper can be the source of various problems in postpress operations, e.g. sheet feed, stream delivery and double feed. During the drying in the heatset offset process, most of the moisture in the paper is evaporated. The dry paper is more easily charged in the folder and various postpress stages.

When studying the electrostatic properties of the paper, usually a constant print density trial is conducted.

Variable parameters which affect the electrostatic properties of the paper are:

- drying conditions
- fountain solution feed
- amount and type of silicone
- ink amount
- ink pigment type

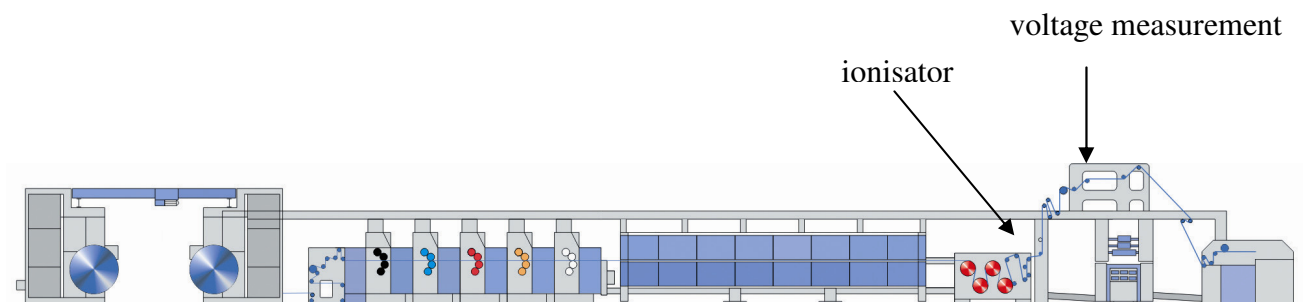
The moisture and temperature in the machine hall can be controlled during the day,

whereby their effect on the electrostatic properties of the paper can be studied.

The printing machine is further equipped with an ionisator after the siliconizing unit and before the electrostatic measurement. This equipment enables the studying of how different papers are charged, and how easily they can be discharged.

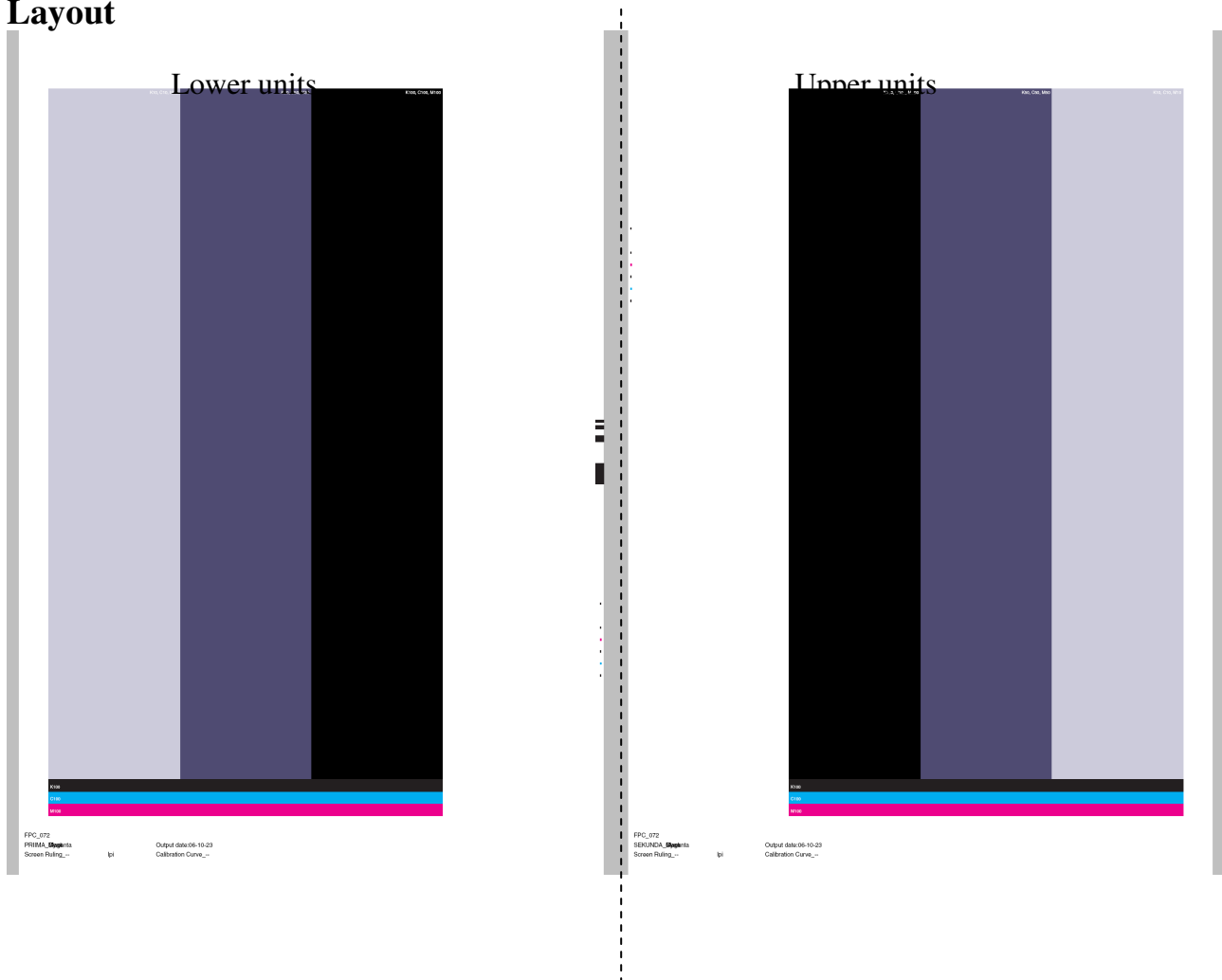
The charge of the printed paper is measured every two seconds, and the average, minimum and maximum values are reported for every trial point. Also voltage trends for the different trial points are available.

The amount of paper needed for an electrostatic measurement printing is 2000 meters per trial point.



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Layout



Amount of paper needed:
2000 m/trial point

Measurements:

- on-line electrostatic measurement
 - ionisator on/off
 - voltage trends

